

*Stated Meeting, February 19, 1869.*

Present, fourteen members.

Mr. FRALEY, Vice-President, in the Chair.

Dr. Horn, a newly elected member, took his seat.

Letters accepting membership were received from Samuel Birch, dated British Museum, London, February 2d, and William H. Flower, dated College of Surgeons of England, London, February 1, 1869.

Letters of acknowledgment were received from the London Antiquarian Society, Nov. 23, 1868, for No. 77, the Essex Institute, Rhode Island Historical Society and University of New York City, all for No. 80 of the Proceedings.

A letter from M. Chevalier announced the transmission of a set of the reports of the Jury of the International Exposition of 1867.

A letter from Prof. Coppeé enclosed a receipt for Mariana's History of Spain.

Donations for the Library were announced from Prof. Zan-teschi, the Russian Academy, French Geographical Society, B. N. H. Society and Public Library, Mr. Eli K. Price, Dr. Kirkbride, Prof. Cope and Hon. Charles Sumner.

The death of Charles N. Bancker, at Philadelphia, February 16, 1869, aged 91, was announced by Dr. Hays with appropriate remarks, and on motion of Mr. Fraley, Judge Cadwalader was requested to prepare an obituary notice of the deceased.

Mr. Lea communicated for publication in the Transactions "Remarks on Thirteen New Species of Crinoidea, from the

Palæozoic rocks of Indiana, Kentucky and Ohio, &c. By Sidney S. Lyon of Louisville, with 4 plates," which was referred to a committee consisting of Mr. Lea, Mr. Cope and Mr. Lesley.

The Secretary, in the absence of Dr. Leidy, communicated for publication a memoir "On the Geological Age and Equivalents of the Marshall Group. By Prof. A. Winchell." Which was referred to a committee consisting of Mr. Lesley, Dr. Le Conte and Dr. Leidy.

A letter from Prof. F. V. Hayden communicated "Notes on the Geology of Wyoming and Colorado Territories, No. 2, with 6 wood cuts, already cut, and two ink sketches," which was referred to the Secretaries with power to act.

Prof. Cope exhibited and described a jaw of *Mylodon annectens* from the post-tertiary rocks of South America.

Prof. Cope exhibited the mandible of a gigantic sloth from the post-tertiary of the Banda Oriental in South America. He stated that it belonged to the genus *Lestodon* (Gervais) but approached in its characters the *Myodon* of Owen. He pointed out the anterior canine teeth of *Megalonyx*, the posterior canines of *Lestodon*, and the reduction of the same in *Mylodon* to the character of small premolars, less than the molars. In the species exhibited, the canine is removed to close proximity to the molars, and was as large as the first, immediately following it. The species differs not only in this respect, but in the form of this and other teeth from the *Mylodon robustus* (Owen), to which it is nearly related. The form of the symphysis is not very different, but is turned outwards at the anterior angles and emarginate medially. The lateral margin concave. The canine directed upwards, and more outwards than the molars. Its section presents longer straight inner and anterior sides, and a short convex outer side, which is connected to the inner by an oblique, slightly concave side. The second tooth or molar about the same size, and of subtrifoliate section, the outer lobe more obtuse, and less strongly separated by alveolar ridges than the two inner from each other. Third molar quite oblique, directed backward and inward, the section composed of four arcs separated by alveolar ridges. Posterior part of alveolus of last molar broken away, the anterior part narrower and more oblique than any other tooth.

Prof. Cope stated that the species seemed to be near the *Lestodon myloides* of Gervais, which was however so briefly described as to be scarcely recognizable. According to the characters of *Lestodon*, the canine tooth appears to be at a greater distance from the molar than in

the present animal, where that distance is only twice as great as that between the first and second molars.

Prof. Cope described several points of novelty and importance in the memoir on the Fossil Batrachia of North America, which the Society is publishing in Part 1 of Vol. XIV. of its Transactions; and expressed a desire that the Society should permit him to illustrate the memoir with additional plates.

He pointed out that all the tortoises of the Cretaceous yet discovered were fresh water forms, many allied to Chelydra, and that there were no extinct land tortoises or Testudinidae in North America, the species from the Western Territories referred hitherto to Testudo being in fact Emydidae. He called attention to the peculiar characters of the Mosasaurs and of the Streptosauria, as not having been previously pointed out, and stated there were eleven species of the first named group known to him from North America. One of these, *M. depressus* Cope, common in New Jersey, is defined by the transverse ovate form of the vertebral centra throughout the column, and the presence of a prominent rib of the outer face of the quadrate bone, throwing the meatal pit inward, and not reaching the proximal articular face.

He mentioned also the modifications of form in the Dinosaurian skeleton, by which an approach to the Birds was indicated. Thus the ilium from a vertical, assumed a transverse position, the acetabulum being thrown upward and forward, while the great size and inferior and posterior position of the other pelvic elements transformed the weight of the viscera posteriorly, to beneath the support. The consequence of this was the inclosure of a longer series of vertebræ as sacral, derived from the lumbar series, and the support of the body by a powerful hind limb, more nearly beneath the centre of gravity than in other types of reptiles.

An additional approximation to the birds was seen in the hind limbs. The head of the femur was transverse to the condyles, and the crest of the ilium furnished with a very elevated crest. In the more quadrupedal forms as *Iguanodon* and *Hadrosaurus* the crest was much curved outwards, while in the biped types as *Laelaps* and *Pœcilopleurum* the crest projected more forward. In the latter also the *astrogalus* embraced the tibia in the closest manner, and presented to the foot at a remarkable angle. In *Compsognathus* this element had united with the tibia as in birds. The latter and *Stenopelix Myo*, he stated to be the best preserved in pelvic characters. He stated that these affinities had been explained by him at a meeting of the Academy of Natural Sciences of Philadelphia, in Feb., 1867, and had since been confirmed by other authors.

Nominations Nos. 622 and 623, and new nominations Nos. 624, 625, 626 were read.

And the Society was adjourned.